DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: NH000-0056-01(061) Fulton
P.I. No.: 751580
SR 400/Northridge Road Interchange

OFFICE: Engineering Services

DATE: March 12, 2012

FROM: Lisa L. Myers, Acting State Project Review Engineer

TO: Darryl D. VanMeter, PE, State Innovative Program Delivery Engineer
Attn.: Marlo Clowers

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above project was held October 24-27, 2011. The VE Study was performed based on the original scope of the project to provide interim operational improvements which included the widening of the existing Northridge Bridge over SR 400. The Department recently performed a bridge condition survey which recommends extensive deck repairs. Based on this survey, the scope of the project has been expanded to include replacing the bridge with a new structure that would not preclude the constriction of the future Managed Lane System along SR 400. Responses based on the new scope of the project were received on March 7, 2012. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT #	Description	Potential Savings/LCC	Implement	Comments
A-1	Reduce the width of the shared bike/vehicle lanes from 13 feet to 11 feet	$193,000	No	No longer applicable due to scope change. The new bridge will include minimum width bike lanes in both directions
A-3	Construct the bridge widening over SR 400 using Type III pre-stressed concrete beams in lieu of steel beams	$240,000	No	No longer applicable due to scope change. The bridge will likely be replaced with a steel bridge due to the required span lengths.
A-10	Overlay the existing bridge deck with asphalt pavement instead of a concrete overlay with hydro-demolition	$616,000	No	No longer applicable due to scope change. The bridge will be replaced.
B-2	Reduce the width of the shoulder on Northridge Drive from 12 feet to 10 feet from Sta. 205+00 to Sta. 210+00	$15,000	Yes	This will be done.

C-1	Eliminate the temporary concrete barrier in Stage 3 and replace it with construction barrels	$64,000	Yes	This will be done.
G-2	Use asphalt pavement and overlay in lieu of concrete pavement for widening Ramp A and Ramp B intersection approaches	$13,000	No	OMR recommends the use of PCC for design and construction of NB entrance and exit ramps because they currently consist of PCC. See attached pavement type recommendation memo.
G-2.1	Eliminate the 3 inch asphalt layer between the GAB and concrete pavement	$11,000	Yes	This will be done.
G-2.2	Use a 1 ½ inch thick layer of asphalt in lieu of a 3 inch layer of asphalt in the concrete pavement typical section	$5,000	No	This cannot be done because G-2.1 will be implemented.
G-2.3	Use filter fabric in lieu of the 3 inch asphalt layer in the concrete pavement typical section	$8,000	No	This cannot be done because G-2.1 will be implemented.
G-5	Eliminate the roundabout intersection at the east end of the project and construct a gravel turn around	$16,000	No	The roundabout is a context sensitive solution that is supported by the affected neighborhood.
G-5.1	Eliminate the roundabout intersection at the east end of the project and modify the east side of the Roberts Drive/Northridge Road intersection	$24,000	No	The roundabout is a context sensitive solution that is supported by the affected neighborhood.
G-7	Construct a second NB exit lane on SR 400 to tie directly into the existing two lane NB exit ramp	-$72,000 cost increase	Yes	This will be done.
H-1	Use yellow cross-hatch striping in lieu of raised concrete median between the ramp entrance/exit areas in the signalized intersections	-$15,000 cost increase	No	The cross slope of the median between the exit/entrance lanes slopes away from the motorists, therefore reducing the visibility of the striping.

H-2	Add additional signage to the SR 400 NB exit Ramp	-$60,000 cost increase	Yes	The additional signage exceeds MUTCD requirements; however, based on the desire to improve the NB SR 400 exit ramp signage to Northridge Road and Dunwoody Place, the additional signage adds clarity to the lane configuration.
H-4	Replace smaller concrete island with white or yellow cross hatching	$4,000	No	These raised islands are a physical barrier to channelize traffic and to prevent weaving in these areas.

The Office of Engineering Services concurs with the Project Manager's responses.

Approved: _____ **Date:** 4/30/2013
Gerald M. Ross, PE, Chief Engineer

LLM
Attachments
c: Russell McMurry
Darryl VanMeter/Mike Dover/Marlo Clowers
Paul Liles/Ben Rabun/Bill Duvall/Dexter Whaley
Jonathan Cox/Michael Hester
Jeff Woodward
Lee Upkins
Ken Werho/Nabil Raad
Lisa Myers
Matt Sanders

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH000-0056-01(061), Fulton County
SR 400/US 19 @ CR145/ Northridge Road
P.I. # 751580-

OFFICE Innovative Program Delivery

DATE February 29, 2012

FROM Darryl D. VanMeter, P.E., State Innovative Program Delivery Engineer

TO Lisa Myers, Acting Project Review Engineer
Attention: Matt Sanders

SUBJECT **Value Engineering Study – Revised Response to Final Report**

The final report for the Value Engineering Study conducted on October 24 - 27, 2011 for the above listed project has been reviewed by this Office and discussed with the Subject Matter Experts. Due to scope changes on the project, the original responses to each of the value engineering recommendations have been revised and are included in the attachment.

The Office of Innovative Program Delivery is in agreement with the responses listed in the attached report. If you have any questions or require additional information, please contact Marlo Clowers at (404) 631-1713 or email.

DVM:MLC

Attachments
cc: Russell McMurry

Kimley-Horn
and Associates, Inc.

February 15, 2012

2 Sun Court
Suite 220
Norcross, Georgia
30092

Marlo Clowers, P.E.
Project Manager
GDOT, Office of Innovative Program Delivery
One Georgia Center, Suite 1900
600 West Peachtree Street
Atlanta, Georgia 30308

Re: VE Responses
Project No. 751580-
SR 400/Northridge Road Interchange

Note: The Value Engineering Study was performed based on the original scope of the project to provide interim operational improvements which included the widening of the existing Northridge Road bridge over SR 400. The Department recently performed a bridge condition survey which recommends extensive deck repairs. Therefore, the Department has expanded the scope of the project to include replacing the bridge with a new structure that would not preclude the construction of the future Managed Lane System along SR 400.

Reference is made to the recommendations that were contained in the Value Engineering Study Report dated November 8, 2011 for the above referenced project. Responses and recommendations are as follows:

1. **Value Engineering Alternative #A-1: Reduce the width of the shared bike/vehicle lanes from 13 feet to 11 feet.**
   VE Team Savings: $193,000

   No longer applicable due to scope change. The new bridge will include minimum width bike lanes in both directions.

2. **Value Engineering Alternative #A-3: Construct the bridge widening over SR 400 using Type III Prestressed Concrete Beams in-lieu-of Steel Beams .**
   VE Team Savings: $240,000

TEL 770.825.0744
FAX 770.825.0074

No longer applies due to scope change. The bridge will likely be replaced with a steel bridge due to the required span lengths.

3. **Value Engineering Alternative # A-10: Overlay the existing bridge deck with asphalt instead of a concrete overlay with hydro-demolition.**
   VE Team Savings: $616,000

   No longer applies due to scope change. The bridge will be replaced.

4. **Value Engineering Alternative #B-2: Reduce the width of the shoulder on Northridge Road (Station 205 to Station 210) from 12 feet to 10 feet.**
   VE Team Savings: $15,000

   Yes, will implement.

5. **Value Engineering Alternative #C-1: Eliminate the temporary concrete barrier in Stage 3 and replace it with construction barrels.**
   VE Team Savings: $64,000

   Yes, will implement.

6. **Value Engineering Alternative #G-2: Use asphalt pavement and overlay in-lieu of concrete pavement for widening Ramp A & Ramp B intersection approaches.**
   VE Team Savings: $13,000

   No, will not implement. OMR recommends the use of PCC for design and construction of northbound entrance and exit ramps as they currently consist of PCC. This alternative does not represent equal or better value. See attached Pavement Type Recommendation memo dated November 17, 2011.

7. **Value Engineering Alternative G-2.1: Eliminate the 3-inch asphalt layer in the concrete pavement section.**
   VE Team Savings: $11,000

Yes, will implement.

8. **Value Engineering Alternative G2.2: Use a 1 ½-inch thick asphalt layer in-lieu-of a 3-inch asphalt layer in the concrete pavement section.**
   VE Team Savings: $6,000

   No, will not implement – Because we are implementing G2.1. Only one of the recommendations can be implemented.

9. **Value Engineering Alternative G2.3: Use Filter Fabric in-lieu-of- 3-inch asphalt layer in the concrete pavement section.**
   VE Team Savings: $8,000

   No, will not implement – Because we are implementing G2.1. Only one of the recommendations can be implemented.

10. **Value Engineering Alternative # G-5: Eliminate the roundabout intersection at the east end of the project and construct gravel turn around.**
    VE Team Savings: $16,000

    No, will not implement. The roundabout is a context sensitive solution in which the affected neighborhood will support. This alternative does not represent equal or better value.

11. **Value Engineering Alternative # G-5.1: Eliminate the roundabout intersection at the east end of the project and modify the east side of Roberts Drive/Northridge Road Intersection.**
    VE Team Savings: $20,000

    No, will not implement. The roundabout is a context sensitive solution in which the affected neighborhood will support.

12. **Value Engineering Alternative # G-7: Construct a second NB exit lane segment on SR 400 to tie directly into the existing two-lane NB exit ramp.**
    VE Team Savings: Increase cost of $72,000

    Yes, will implement.

13. **Value Engineering Alternative # H-1: Use yellow cross-hatch striping in-lieu-of raised concrete median between the ramp entrance/exit areas in the signalized intersections.**
VE Team Savings: $15,000

No, will not implement. The cross slope of median between the exit/entrance lanes slopes away from the motorists, therefore reducing the ability for the striping to be seen clearly.

14. **Value Engineering Alternative # H-2: Add/revise overhead signing for the SR 400 NB off ramp.**
VE Team Savings: Increase of $60,000

Yes, will implement. The additional signage exceeds MUTCD requirements; however, based on the desire to improve the northbound SR 400 exit ramp signage to Northridge Road and Dunwoody Place, the additional signage adds clarity to the lane configuration.

15. **Value Engineering Alternative # H-4: Replace smaller concrete islands with white or yellow cross hatch striping.**
VE Team Savings: $4,000

No, will not implement. These raised islands are for a physical barrier to channelize traffic and to also prevent weaving in these areas.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.

Gary T. Newton, P.E.
Project Manager

PRECONSTRUCTION STATUS REPORT FOR PI:751580-

PROJ ID : 751580-
COUNTY : Fulton
LENGTH (MI) 0 50
PROJ NO.: NH000-0056-01(061)
PROJ MGR: Clowers, Marlo
AOHD Initials: MD
OFFICE : Innovative Prog. Delivery
CONSULTANT: Design-Build Approved
SPONSOR : GDOT
DESIGN FIRM: Kimley-Horn and Associates, Inc.

SR 400/US 19 @ CR 145/NORTHRIDGE ROAD

MPO: Atlanta TMA
TIP #: FN-AR-191
MODEL YR : 2016
TYPE WORK: Interchange
CONCEPT: INTERCH RECONST
PROG TYPE: Reconstruction/Rehabilitation
Prov. for ITS: N
BOND PROJ :

PRIORITY CODE: SRTA
DOT DIST: 7
CONG. DIST: 6
BIKE: N
MEASURE: E
NEEDS SCORE: 04
BRIDGE SUFF:

MGMT LET DATE : 08/17/2012
MGMT ROW DATE : 03/15/2012
BASELINE LET DATE: 08/21/2012
SCHED LET DATE : 1/8/2013
WHO LETS?: GDOT Let
LET WITH :

BASE START	BASE FINISH	*LATE START*	*LATE FINISH*	*TASKS*	*ACTUAL START*	*ACTUAL FINISH*	%
8/4/2011	11/3/2011		3/22/2012	Concept Development	9/7/2011		59
9/15/2011	9/15/2011			Concept Meeting	12/7/2011	12/7/2011	100
9/22/2011	9/22/2011			PM Submit Concept Report	12/21/2011	12/21/2011	100
9/23/2011	11/3/2011		3/22/2012	Concept Report Review and Comments	1/3/2012		27
11/3/2011	**11/3/2011**	**3/22/2012**	**3/22/2012**	**Management Concept Approval Complete**			**0**
11/21/2011	4/20/2012		4/6/2012	Value Engineering Study	7/19/2011		86
9/29/2011	2/22/2012		3/22/2012	**Environmental Approval**	**10/7/2011**		25
11/4/2011	12/1/2011	3/23/2012	4/19/2012	R/W Plans Preparation			0
12/2/2011	**12/29/2011**	**4/20/2012**	**5/17/2012**	**R/W Plans Final Approval**			**0**
3/1/2012	3/28/2012	7/6/2012	8/2/2012	R/W Authorization			0
7/5/2012	7/18/2012	11/9/2012	11/22/2012	Stake R/W			0

PROGRAMMED FUNDS

Activity	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	2011	2011	500,000.00	44220	AUTHORIZED	2/16/2011
ROW	1997	1997	4,490,669.20	315	AUTHORIZED	
ROW	2012	2012	1,000,000.00	44220	PRECST	
CST	2013	2013	5,500,000.00	44220	PRECST	

Cost Estimate Amount

Activity	Amount	Date
PE	$500,000.00	6/16/1988
ROW	$4,490,669.20	3/18/2011
ROW	$1,000,000.00	3/18/2011
CST	$5,500,000.00	3/18/2011

STIP AMOUNTS

Activity	Cost	Fund
PE	0.00	44220
ROW	0.00	315
ROW	1,000,000.00	44220
CST	5,500,000.00	44220

PDD: "LR CONSULT". REDEFINE DESCRIP IN TIP. FHWA APPROVED ADV ACQ OF WILLIAMS PROPERTY. 1/21/99
Bridge: BRIDGE REQUIRED
Design: Costing Plans in progress [MLC 1/12]
EIS: GEPA Type B\NotApvd\OnSchedule-AUG-LET\Scott 02 23 12
LGPA: NOTIFICATION NEEDED
Planning: Env6 unfunded
Programming: ADV ACQ 10-96|PR2/R=11-12-96|8-8-97|#2/R=8-13-97|#4/R=12-18-97|#5 2-01|CHANGED TO EXEMPT PEI FHWA 12-20-2010
Traffic Op: SEND PLANS FOR REVIEW 12-13-07
UST: MC
Utility: CC:NEED PPLANS 03/12;SUE
EMG: RECST/REHAB (INTERCHANGE RECST); C=M/S/D
Engr Services: VE Report Distributed 11/10/11

District Comments

This project is funded with SRTA toll reserves. Approved for Design-build. [MLC 1/12]

Prel. Parcel CT:	4	**Total Parcel in ROW System:**	1	**Cond. Filed:**	0	**Acquired by:**	DOT
Under Review:	0	**Options - Pending:**	0	**Relocations:**	0	**Acquisition MGR:**	
Released:	1	**Condemnations- Pend:**	0	**Acquired:**	1	**R/W Cert Date:**	

DEEDS CT: 1